



## Comparison of Antibiotic Susceptibility of *Klebsiella* Species Causing Urinary Tract Infection in Iran and Other Countries around Asia

Moein Hamidi Hesari<sup>1,4</sup>, Taban Hashemi<sup>1</sup>, Jafar Hemmat<sup>2\*</sup>, Noorkhoda Sadeghifard<sup>3</sup>

<sup>1</sup>Islamic Azad University of Nishapur, Department of Biology, Nishapur, Iran

<sup>2</sup>Biotechnology Department, Iranian Research Organization for Science and Technology, IROST, Tehran, Iran

<sup>3</sup>Medical University of Ilam, Clinical Microbiology Research Center, Ilam, Iran

<sup>4</sup>Imam Khomeini Hospital, Shirvan, North Khorasan University of Medical Sciences, Bojnurd, Iran

### Supplementary file:

**Table Sup.** Comparisonall pattern of the antibiotic sensitivity of Klebsiella isolates in Iran and other countries during 2007-2018.

Regions	MSenAB1 %	MSenAB2 %	MsenAB3%	MsenAB4%	Ref
China (2009)	TEN =100	CID =96	CAZ =96	SXT=96	Bi XC et al
China (2013)	FOF =100	NIT =66.7	AMC=66.7	LVX=66.7	Qiao LD et al.
China (2017) 2010-2014	IPM= 92.63	AMK=89.22	ETP=87.9	TZP=75.8	Yang et al
China (2018)	AN=75.6	CP=73.2	LVX=73.2	SXT=63.4	Zhang et al.

## Supplementary file of MMB1139 Manuscript (continued)

<b>Regions</b>	<b>MSenAB1 %</b>	<b>MSenAB2 %</b>	<b>MsenAB3%</b>	<b>MsenAB4%</b>	<b>Ref</b>
Taiwan (2016)	AN=91.8	GM=74.2	CP=73	LVX=66.3	Lin et al.
Korea (2013)	IPM=100	AN=95	GM=95	FOX=89.5	Lee DS et al.
India (2011)	IPM=100	CSL =92.2	AN=81.1	GM=64.4	Rizvi et al.
India (2013)	AM=92.9	CP=52	-	-	Dash et al.
India (2013)-2	AN=86.1	IPM=81.9	GM=80.6	TOB=79.2	C, Amsath A et al.
India (2014)	AN=92.3	C=84.6	Polymyxin B =73	AZM =61.5	Manjula et al.
India (2016)	AN=71.6	Amp+Sulbactam=59.2	NIT =46.9	OFX=46.9	Varghese et al
Bangladesh (2015)	IPM=85.1	AN=78.4	NET =69.1	NIT =61.2	Abdullah Yusuf et al.
Pakistan (2009)	SXT =93.48	GM=80.43	CP = 52.17	AN=32.61	Ullah et
Pakistan (2013)	IPM=97.7	CSL =95.8	PTZ=95.7	AN=89.4	Abdullah et al.

## Supplementary file of MMB1139 Manuscript (continued)

<b>Regions</b>	<b>MSenAB1 %</b>	<b>MSenAB2 %</b>	<b>MsenAB3%</b>	<b>MsenAB4%</b>	<b>Ref</b>
Pakistan (2014)	PTZ=91	MEN=81	NIT=53	AN/=40	Jamil et al.
Pakistan (2015)	IPM=99.53	PTZ=98.74	SCF=92.45	AN=90.48	Ahmed et al.
Iran- Esfahan(2013)	CTX=74	CP=70	CFM=63	NA=52	2012Mirzarazi et al.
Iran- Esfahan (2016)	IPM=89. 3	CRO=54.7	CTX=50.7	NOR=40	Sadeghpour et al.
Iran- Isfahan (2018)	Colistin=98	TGC =94.9	GM =79.6	CP =76.5	Maleki et al.
Iran-shahrekord (2015)	IPM=89.3	CRO=54.7	CTX=50.7	NOR, GM=40	Latifpour et al
Iran-Kashan (2015)	IPM=100	CP=53.7	Co-Amox =53.7	CAZ=50	Moini et al.
Iran-kerman (2015)	IPM=89.1	CP=79.4	OFX=77.4	NA=72.9	Moradi et al

## Supplementary file of MMB1139 Manuscript (continued)

<b>Regions</b>	<b>MSenAB1 %</b>	<b>MSenAB2 %</b>	<b>MsenAB3%</b>	<b>MsenAB4%</b>	<b>Ref</b>
Iran- (2015) Bojnord-Ilam	AN=77.5	MEN=77	GM=75	CP =58.75	This study
Iran- Tehran (2015)	TGC=85.8	AN=62.8	IPM=60.7	TET =48.2	Goudarzi et al
Iran Yasuj (2018)	MEN=100	IPM=99	AN=98	CRO=86	Dehshiri et al.
Iraq (2013)	NIT =88	AN=85	CP=77	NA=70	Al-Jebouri et al.
Iraq (2013)	IPM=100	AN=88	CP=86	GM=80	Hammoudi et al.
Turkey (2016)	AN=100	GM=100	CEC =100	CRO=100	Koçak et al.
Turkey (2016)	FOF =100	CP=50	AMC=50	Cefpodoxime=50	Guney sel et al.
Turkey (2017)	FOX=100 (ICU, ) FOX=100 (non-ICU )	AN=100(ICU) AN=95.8(non-ICU )	ETP=84.6 (ICU ) ETP=89.6 (non-ICU )	IPM=84(ICU) 89.8(non-ICU)	Koksal
Saudi Arabia (2019)	IPM= 91.3	AN= 91.3	PTZ= 65.2	GM=65.2	Thomson et al.

## Supplementary file of MMB1139 Manuscript (continued)

Regions	MSenAB1 %	MSenAB2 %	MsenAB3%	MsenAB4%	Ref
Colombia (2012)	IPM=100	ETP=100	AN=85.7	Tetracycline=81	Martinez et al.
Brazil (2016)	AN=92.7	CRO=86.1	GM=81.7	AMC=81.1	Cunha et al
Brazil (2018)	AN= 96	CST=64	TGC= 48	CP= 36	Ferreira et al.
Mexico (2019) 2014-15	MEN=91.42	AN= 87.12	Cefepime= 51.17	CPD= 44.57	Sierra-Díaz et al.

**Abbreviations:** HFSpecies1/2: High frequency, MSenAB1,2: The Most Sensitive Antibiotic 1,2. AM, Ampicillin; AN, Amikacin; AMC, Amoxicillin-clavulanic acid; AZM, Azithromycin; AZT(Aztreonam); C, Chloramphenicol; CB(Carbenicillin), CT(Ceftizoxime), CRO(Ceftriaxone, Ceftriazone), CP(Ciprofloxacin), SXT (Co-trimoxazole), ETP, Ertapenem; GM, Gentamycin; IPM, Imipenem; MEN(Meropenem), NA(Nalidixic acid), FOF, fosfomycin; NIT, Nitrofurantoin; FOX, Cefoxitin; OFX, Ofloxacin, PIP,Piperacillin; PTZ(Piperacillin-tazobactam), TIC(Ticarcillin), TCC(Ticarcillin-clavulanic acid); CAZ(Ceftazidime), Gatifloxacin(GAT); NET, Netilmycin; NIT, Nitrofurantoin; Co-Amox, CoAmoxiclav ; CEF, Cephalothin; AMX, Amoxicilin; Tetracycline, TET; CXM, Cefuroxime; Augmentin; Cefixime, CFM; CRO, Ceftriaxon; CPD, Cefpodoxime; DOX, Doxycycline; PPA ,Pipemidic acid; CEC, Cefaclor; CAZ, Ceftazidime; NOR , Norfloxacin; ATM, Azoternam ; TGC, Tigecycline ; LVX, Levofloxacin; TOB, Tobramycin; FOF, Tromethamine; CID, Cidomycin; CST, Colistin; TEN, Tenebrimycin; Cefdinir, Cefprozil,